AMENDMENTS TO THE SPECIFICATION:

Page 1, last paragraph, continuing onto page 2:

A primary object of the invention is to provide implants with a composite coating to promote tissue in-growth and/or tissue on-growth. Another primary object of the invention is to provide a composition that can be used as the composite coating. Another primary object of the invention is to provide implants having a composite coating that is located only on surface areas of the implant that are to be fixed with tissue in-growth and/or on-growth for stability. Another primary object of the invention is to provide methods of making the orthopedic implant.

Page 2, second full paragraph:

A first aspect of the invention is implemented in an embodiment that is based on an implant, comprising: a substrate; a structured surface defined by at least a portion of said substrate; and a biocompatible coating deposited on at least a fraction of said structured surface. A second aspect of the invention is implemented in an embodiment that is based on a composition for an implant, comprising: a biocompatible material

coated on a structured surface defined by a substrate. A third aspect of the invention is implemented in an embodiment that is based on an implant, comprising: a substrate; a structured surface defined by a portion of ~~said~~ the substrate; and a biocompatible coating deposited on at least a fraction of ~~said~~ the structured surface, wherein ~~said~~ the portion of ~~said~~ the substrate is to be fixed with tissue in-growth and/or on-growth for stability. A fourth aspect of the invention is implemented in an embodiment that is based on a method of forming a composite coating, comprising: depositing a biocompatible coating on a structured surface defined by at least a portion of a surface area of a substrate.

Page 5, last paragraph:

Still referring to FIGS. 3a-3b, ~~a~~ the coating 310 is adhered to ~~a~~ the structured surface 320. In this particular embodiment, the coating 310 is composed of a first material that includes titanium. The coating is preferably a biocompatible coating. In this particular embodiment, the structured surface 320 is defined by a second material that includes cobalt and chrome. In this particular embodiment, the structured surface

was conditioned by cathodic arc ion plating of titanium before the coating 310 was deposited using the same apparatus used to effect the ion plating. In this particular embodiment, the average thickness of the coating 310 is approximately 10.78 microns. If the structured surface 320 includes crevices and/or undercuts 330, the biocompatible material that composes the coating 310 can coat the crevices and/or undercuts 330 in the structured surface.

Page 6, first paragraph:

It can be advantageous if the biocompatible material conforms to the crevices and/or undercuts and thereby defines a textured (e.g., rough) topology at the upper surface of the biocompatible material. This is advantageous because such a topology gives tissue a better hold via tissue in-growth and/or on-growth. Further, if there are pores in and/or beneath the structured surface, the biocompatible material can coat the pores. It can be advantageous if the biocompatible material coats interconnected pores located beneath the structured surface and thereby define voids (pores) and/or interconnected pores in which tissue in-growth and/or on-growth can occur.

Page 8, last full paragraph:

Still referring to FIG. 5, the substrate 570 includes a structured surface (not shown) onto which the coating can be deposited. Portions of the substrate that are not to be coated can be masked with a mask material that can be removed after the deposition of the coating is finished. In general, the coating can be formed by any thin film technique. Thin film techniques include physical vapor deposition and chemical vapor deposition, and combinations thereof.